Linker Component	Representation in diagrams

Acrydite (Acryl) group

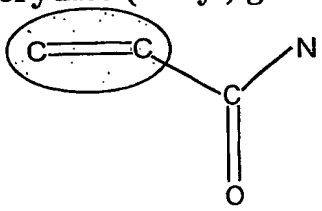


Figure 1A

Spacer

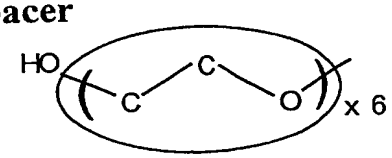


Figure 1B

Tag DNA Sequence; RNA polymerase promoter + transcription/translation start signals

Figure 1C

Complete Tag Linker

Figure 1D

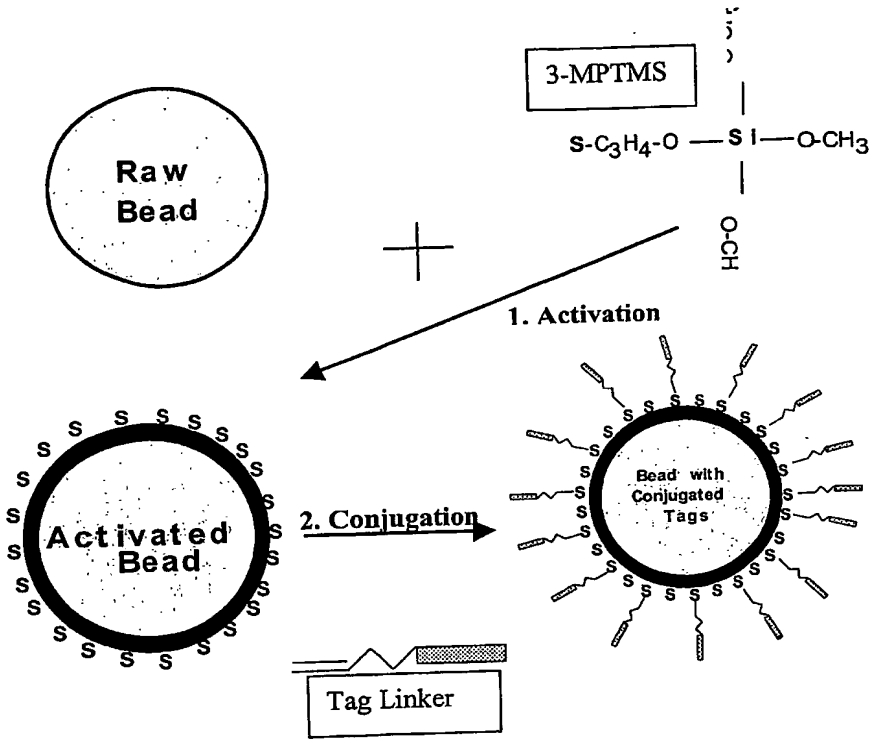
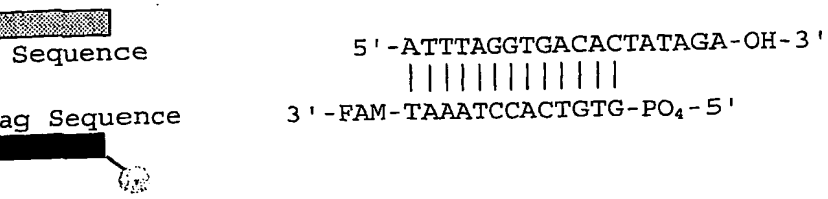
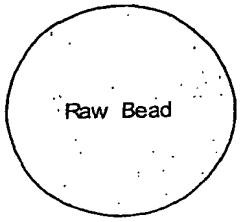

Raw Bead
3-MPTMS
S-C3H4-O — Si — O-CH3
O-CH
1. Activation
Activated Bead
2. Conjugation
Bead with Conjugated Tags
Tag Linker

Figure 2

Figure 3A Tag Sequence

Figure 3B α-Tag Sequence





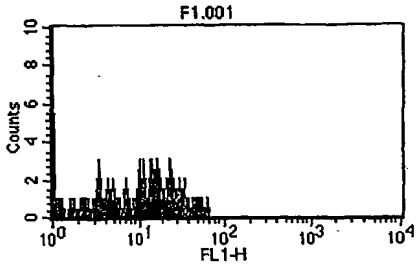
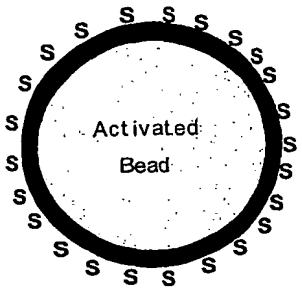


Figure 3C



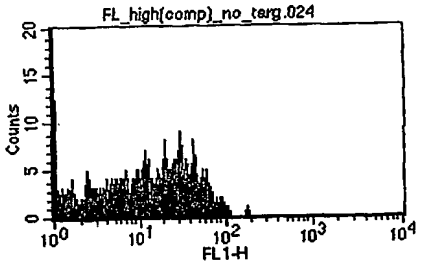
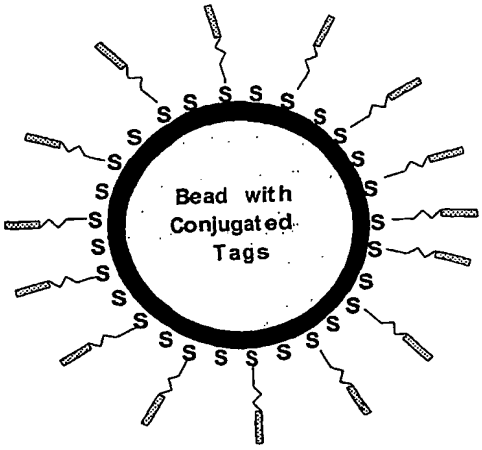


Figure 3D



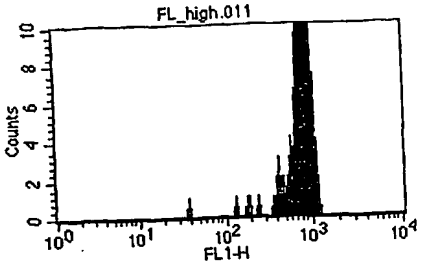


Figure 3E

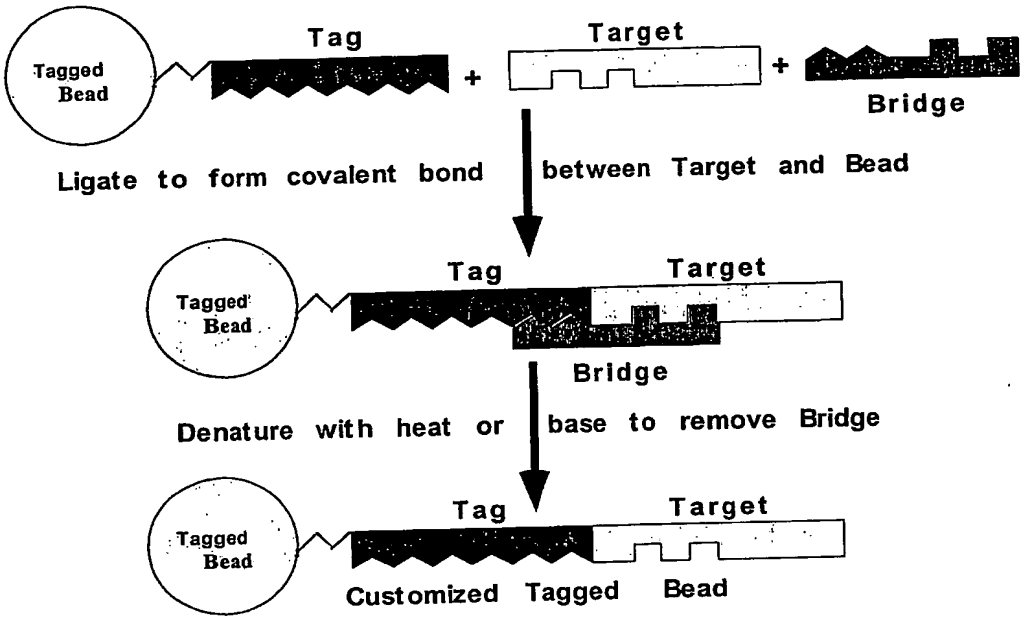

Tagged Bead
Tag
+
Target
+
Bridge
Ligate to form covalent bond
between Target and Bead
Tagged Bead
Tag
Target
Bridge
Denature with heat or
base to remove Bridge
Tagged Bead
Tag
Target
Customized Tagged Bead

Figure 4

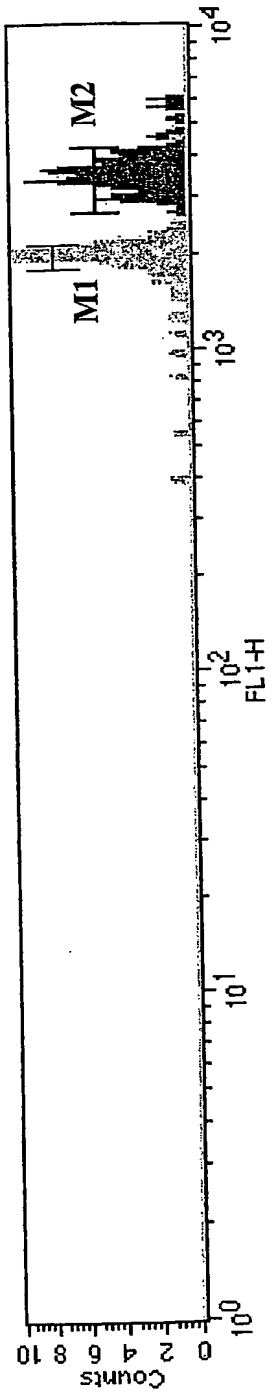


Figure 5

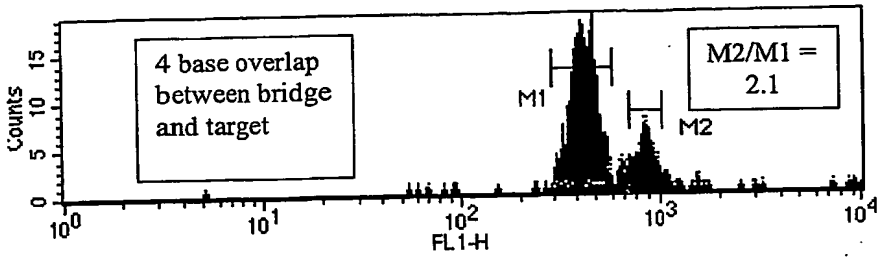


Figure 6A

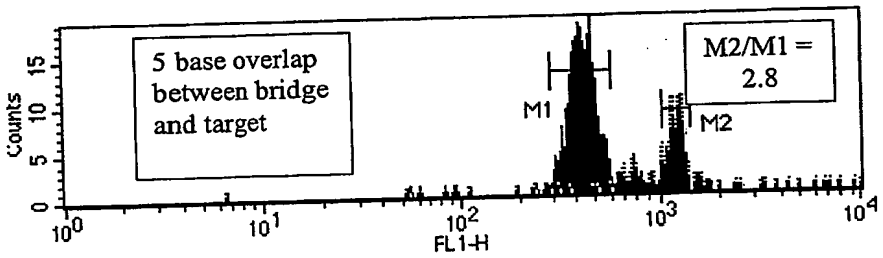


Figure 6B

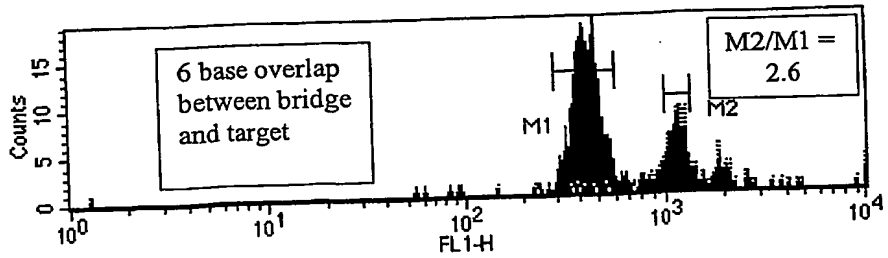


Figure 6C

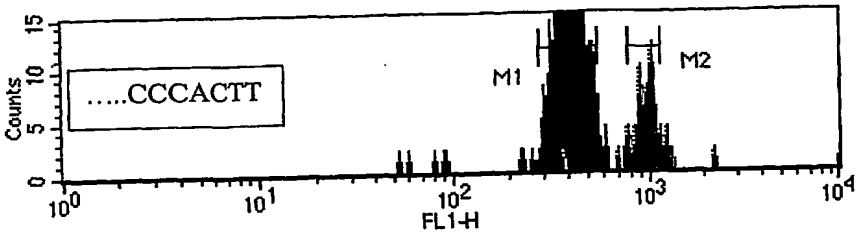
7 - Base Overhang	Control (M1) and Sample(M2) Fluorescence Peaks	Efficiency (M2 / M1)
.....CCCACTT		2.2

Figure 7A

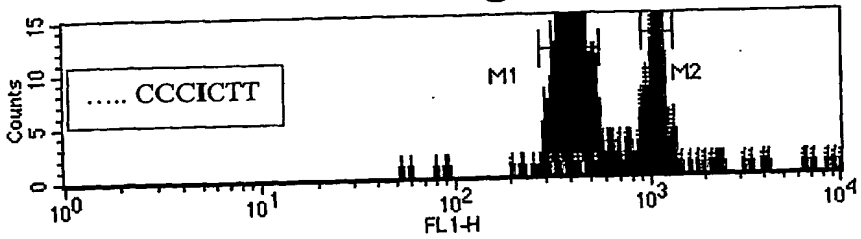
..... CCCICTT		2.2

Figure 7B

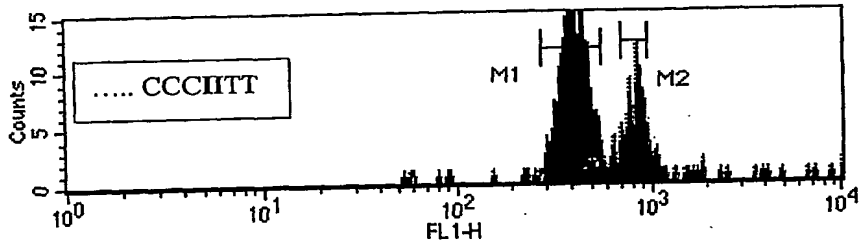
..... CCCIITT		1.8

Figure 7C

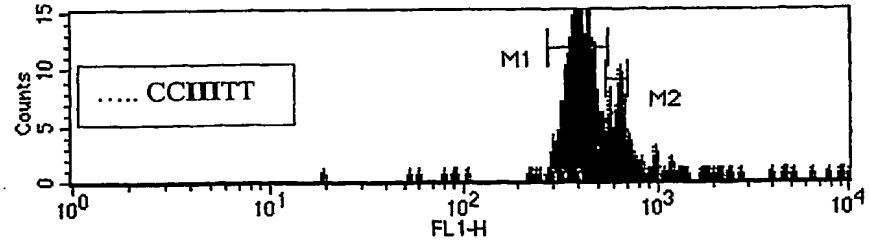
..... CCIIITT		1.4

Figure 7D

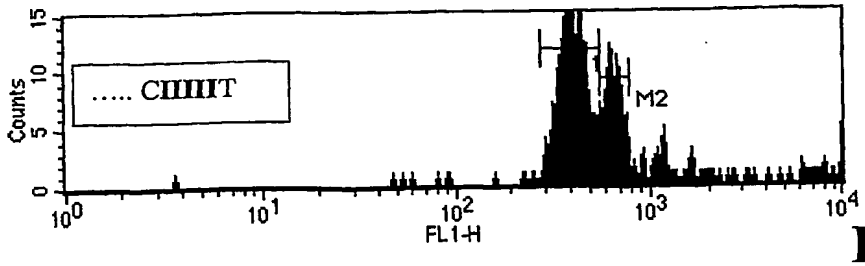
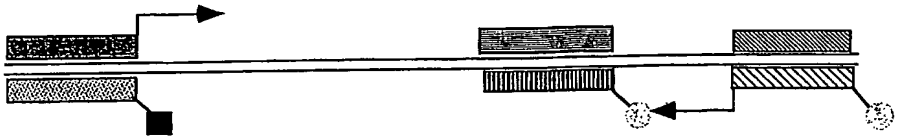
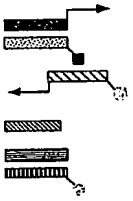
..... CIIIIT		1.5

Figure 7E



a. A 187 bp DNA fragment generated by PCR with the following landmarks:



Forward Primer (phosphorylated)
Complement (Cy5 labelled) on reverse strand to the forward Primer
Reverse Primer (FAM labelled)
Sequence on Forward strand complementary to Reverse primer
Internal Sequence on forward strand
Sequence on Reverse strand (FAM labelled) complementary to

Figure 8A

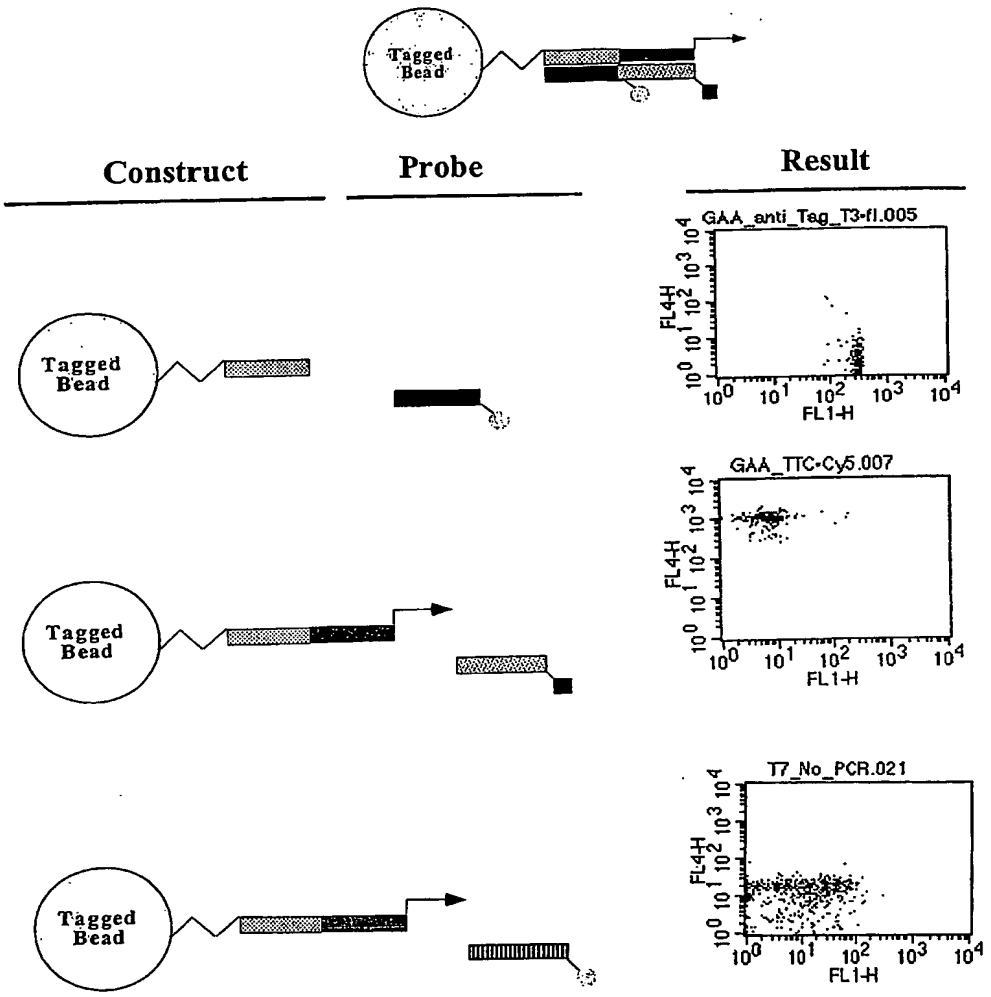

Tagged Bead
Construct
Probe
Result
Tagged Bead
Tagged Bead
Tagged Bead
GAA_anti_Tag_T3-fl.005
GAA_TTC-Cy5.007
T7_No_PCR.021
FL4-H
FL1-H

Figure 8B

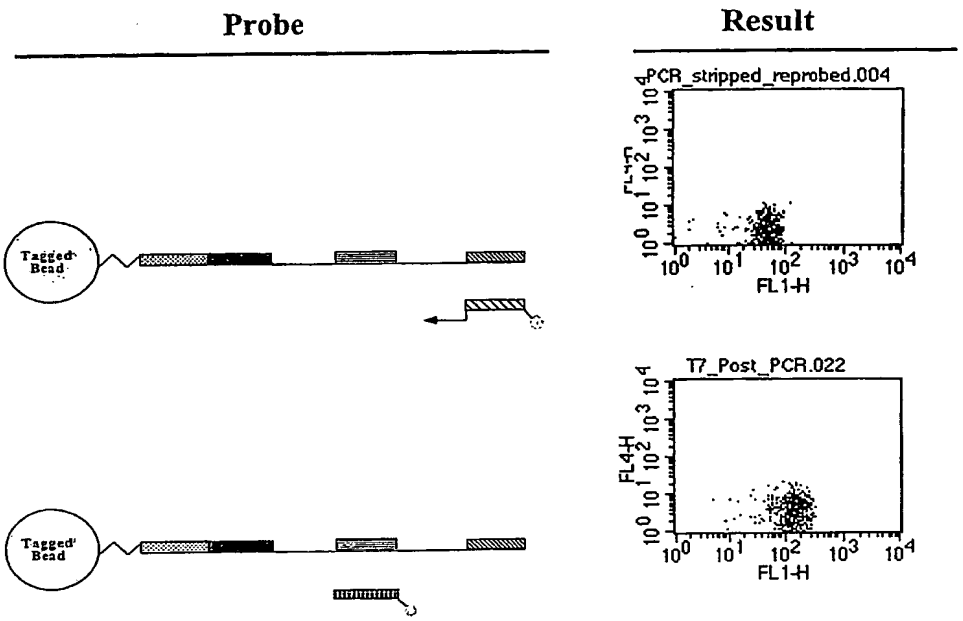

Probe
Result
Tagged Bead
Tagged Bead
PCR_stripped_reprobed.004
T7_Post_PCR.022
FL1-H
FL4-H

Figure 8C